



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,659	12/07/2001	Allan D. Jepson	A1459	3907
28014	7590	11/28/2005	EXAMINER	
BEVER, HOFFMAN & HARMS, LLP			LU, TOM Y	
1432 CONCANNON BLVD				
BLDG G			ART UNIT	
LIVERMORE, CA 64550-6006			PAPER NUMBER	
			2621	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/016,659

Applicant(s)

JEPSON ET AL.

Examiner

Tom Y. Lu

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7, 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 8, 9 and 14 is/are rejected.
- 7) ☒ Claim(s) 10-13 and 15-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Request for Continued Examination filed on 11/01/2005 has been entered.
2. Upon entry of the Request for Continued Examination, the amendment and written response filed on 11/01/2005 has been entered and considered.
3. The affidavit filed on 11/01/2005 has been entered and considered.
4. Claims 1, 8, 14, 15 and 19 have been amended.
5. No claims have been cancelled.
6. Claims 1-20 are pending.

Response to Arguments

7. Applicant's arguments, see Remarks, filed 11/01/2005, with respect to the rejection(s) of claim(s) 1, 8, 14 and 19 under 35 U.S.C. 102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sun et al (U.S. Patent No. 6,731,799 B1).
8. Upon further consideration of specification and in light of applicant's affidavit, the rejection of specification is now withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 8, 9 and 14 rejected under 35 U.S.C. 102(e) as being anticipated by Sun et al (U.S. Patent No. 6,731,799 B1).

- a. Referring to Claim 8, Sun discloses a method for tracking a selected target object (column 1, line 25) comprising: receiving a current image frame including image datum associated with of the target object (column 10, line 47, "current frame" includes the video object to be tracked); estimating a motion of the target object using an adaptive appearance model (figure 7, frequency distribution 110 is the claimed an adaptive appearance model) including a first image component having parameters that are calculated using a plurality of image data values respectively received over a relatively large number of image frames temporally preceding the current image frame, the relatively large number being greater than three (background model, column 9, line 17, contains first component of background, and has the parameters of average background luminance value and a standard deviation derived from the frequency distribution, column 10, lines 42-43. The examiner notes, the average background data/mean of Gaussian distribution, μ_k , and the standard deviation α_k are calculated based on a plurality of image frames, column 9, line 41, the number k is bigger than 3 as seen in figure 5. The parameters of calculating background differences are based on the background model which is trained using a plurality of image frames), and a second image component having parameters that are calculated using a plurality of image data values respectively over the relatively small number of said sequential image frames temporally preceding the current image frame (the second image

component is the motion boundary of the video object. The parameters of absolute differences or motion vectors are calculated between two successive image frames, column 11, lines 35-50); and updating the first and second image components (column 11, lines 19-20, the background model is updated continuously, and the motion boundary of the video object is updated according to the pixel difference and the threshold value).

- b. Referring to Claim 9, Sun discloses filtering said current image frame using a wavelet-based filter before estimating motion (column 13, line 16).
- c. With regard to Claim 14, all limitations are addressed in Claim 8.

Allowable Subject Matter

10. Claims 1-7 and 19-20 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

- a. Claims 1 and 19 are allowed based on the convincing arguments presented in Remarks dated 11/01/2005, and the newly applied prior art reference does not anticipate all the limitations recited in the independent claims 1 and 19.
- b. Claims 2-7 are dependent upon claim 1.
- c. Claim 20 is dependent upon claim 19.

11. Claims 10-13 and 15-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2621

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y. Lu whose telephone number is (571) 272-7393. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu

